

### AFFIDAVIT OF AMY VILELA

County of Clark ) .ss State of Nevada )

- I, Amy Vilela, do hereby depose and state, and would testify as follows:
- I am, and at all relevant times have been, a resident of Clark County, State of Nevada.
- 2. I am the mother of Shalynne V. Ramos who died on June 28, 2015.
- On December 24, 2014 Shalynne had fallen on her knee and had torn her ACL.
   This occurred in Kansas City, MO.
- 4. Shalynne explained to me that she did not seek further treatment as she was told it would heal on its own. She was told, at that time, that torn ACLs will often heal on their own and that if it did not heal, she may decide to explore surgery for full functionality.
- 5. On May 23, 2015, Shalynne drove approximately 22 hours from Missouri to Las Vegas, Nevada, arriving May 25, 2015. As soon as she arrived in Las Vegas, she was complaining of pain and swelling in her knee and lower leg, including the calf area. I personally observed this swelling in the knee and lower leg, including her calf area. She likened the pain to having "charley horses" in her calf area. She repeatedly complained of these "charley horses" over the next several weeks.
- 6. From May 27, 2015 to May 31, 2015, I was in San Diego for work. I spoke with Shalynne several times while I was in San Diego. I recall her stating that her knee still appeared swollen and the she had pain in her knee and lower leg.

- 7. On June 1, 2015, the morning after I arrived back in Las Vegas, Shalynne again complained of pain in her knee and lower leg. She continued to remark about the swelling and pain, including the "charley horse" sensations.
- 8. On June 3, 2015, Shalynne fell again, including on her previously injured knee.

  She indicated that was in extreme pain in her knee and lower leg and she went to

  Centennial Hospital in Las Vegas, Nevada that same day.
- 9. Shalynne did not believe she had insurance at the time. She informed me that when she went to Centennial Hospital that day, she was immediately asked whether she had insurance. In fact, she called me during the intake process at the hospital to ask me whether she had insurance through Tricare insurance. When she indicated that she did not, she was told that she should avoid having to pay by going and obtaining insurance and then returning at a later date.
- 10. Shalynne informed me that during her exam in the emergency room, she was told repeatedly that the problem with her knee was not something that the hospital could address and that she could return when she had insurance or she could obtain insurance and then seek surgery on her knee. She told the hospital personnel that she had extreme pain in her knee and lower leg and that something was seriously wrong with her. She demanded that they perform additional testing on her leg, including an MRI. The hospital refused.
- 11. At that time, Shalynne was overweight, smoked tobacco, and was on the Nuva Ring birth control and Metformin (500mg x 2 per day). She had PCOS.
- 12. Shalynne was African-American and had the "sickle-cell trait". She did not have full blown sickle-cell anemia. She and her brother both have this same genetic condition. They are both well aware that they have this condition. In addition, I

- had encouraged both Shalynne and her brother to take a copper supplement in order to strengthen their veins.
- 13. While in the hospital, I was on the phone with Shalynne and heard her conversing with the hospital staff. She complained to them of extreme pain in her leg, including her lower leg below the knee. The hospital refused to perform any diagnostic testing on Shalynne other than an x-ray despite the fact that she repeatedly told them that something was seriously wrong with her leg and that she was in excruciating pain and that she needed additional tests.
- 14. The hospital prescribed a knee mobilization device to Shalynne but she told me that they gave her no instruction as to how to properly use the device and prevent improper pressure from being applied by the device. Once given the immobilization device, Shalynne was told nothing further could be done for her because she needed surgery on her knee and she did not have insurance. As she had just arrived in Las Vegas, she had no general practitioner here. The hospital gave her no warning about the risk of blood clots, and failed to warn her not to sit for long periods of time, despite the fact that she was not from Las Vegas. She was discharged that same day.
- 15. In accordance with the hospital's verbal instructions, Shalynne applied for Medicaid as soon as the hospital discharged her and was waiting for the approval. The paperwork for Medicaid came after her death.
- 16. Throughout the next few weeks, between June 3, 2015 and June 23, 2015, Shalynne continued to daily complain about the extreme pain in her knee and lower leg. I informed her that she had to follow the advice of the hospital and be patient until she obtained insurance and could seek surgery on her knee.

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- 17. Around June 23, 2015, Shalynne started complaining of feeling out of breath when she climbed the stairs in my home. I attributed this to her being over-weight. I told her that as soon as her knee was healed from the surgery she was instructed to seek after obtaining insurance, she could join me in working out to help her lose weight.
- 18. On the morning of June 25, 2015, Shalynne returned to Missouri via airplane. When she went to the airport she was breathing heavily, had extreme anxiety, was sweating, and was out of breath. In addition, her leg was still in extreme pain.
- 19. Her father picked her up at the airport on June 25, 2015. He informed me that when she got off the plane she was breathing heavily and was sweating. He attributed this to her being over-weight.
- 20. Later in the evening on June 25, Shalynne called me because she was having what he considered panic attacks and she would not calm down. He was very distressed about how upset she was. I calmed her down and told her I would help her through the issues.
- 21. On June 26, 2015 I received a call from Shalynne's father stating that she had woken up in the very early morning house with extreme chest pain. He had to help her out of bed and that she was groaning and crying from the pain. He said she looked at him with extreme fear and told him to call 911. She was moaning and holding her chest until the ambulance arrived. She was alert when the ambulance drove off and even waved to her father. She coded in the ambulance.
- 22. She was then hospitalized that same day. On June 27th, 2015 she no longer demonstrated any signs of brain activity. On June 28th, 2015 life support was removed and she died in my arms that same day.

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23. The diagnosis from the doctors at the hospital in Missouri was that she had an extremely large blood clot in the area of her lower leg, part of which had broken loose from the leg and had gone into her lungs. The doctors further informed me that the size of the blood clot that was still present in her leg, despite the heavy use of clot-thinning medication, was such that it had to have been present and growing for a long period of time, and that it is extremely likely that it was present when she was seen at Centennial Hospital in Las Vegas, and most likely began to form during her drive from Missouri to Las Vegas on May 23rd to May 25th. They further informed me that due to the clot's size, the hospital in Las Vegas obviously failed to diagnose the blood clot that clearly must have been present on June 3, 2015.

24. Further, affiant sayeth naught.

Dated this 29th day of May, 2016.

A. Vilela

Subscribed and sworn to before me this Zq Hay of May, 2016.

State of Nevada County of Clark

CASEY D. GISH Notary Public, State of Nevada Appointment No. 01-67149-1 My Appt. Expires Sep 15, 2017

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County of Clark

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I, Leland Nelson, do hereby depose and state, and would testify as follows:

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- I am, and at all relevant times have been, a resident of Clark County, State of Nevada.
- 2. I was the boyfriend of Decedent, Shalynne V. Ramos who died on June 28, 2015.
- 3. On May 23, 2015, Shalynne drove from Missouri to Las Vegas, Nevada. As soon as she arrived in Las Vegas on May 25, 2015, she was complaining of pain and swelling in her knee and lower leg, including the calf area. I personally observed this swelling in the knee and leg.
- 4. Shalynne continued to complain of the pain and swelling in her knee and lower leg up until June 3, 2015, when she fell down, including on her previously injured knee. She indicated that was in extreme pain in her knee and lower leg and we went to Centennial Hospital in Las Vegas, Nevada that same day. I drove her to the hospital.
- 5. When we arrived at Centennial Hospital that day, Shalynne was immediately asked whether she had insurance. When she indicated that she did not, she was told that she should avoid having to pay by going and obtaining insurance and then returning at a later date.
- At that time, Shalynne was overweight and smoked tobacco and was on birth control.
- I remained with Shalynne nearly the entire time she was at the hospital on June 3,
   I personally heard and witnessed Shalynne's interactions with the hospital

personnel. She complained to them of extreme pain in her leg, including her lower leg below the knee. She physically indicated to multiple hospital personnel the location of the pain she was feeling in her knee and lower leg, including the calf area. She pointed and used her hands to describe to the hospital personnel that the pain she was experiencing was in her knee and lower leg, including the calf area. The hospital refused to perform any diagnostic testing on Shalynne other than an x-ray despite the fact that she repeatedly told them that something was seriously wrong with her leg and that she was in excruciating pain and that she needed additional tests. She repeatedly demanded that the hospital do additional testing on her leg, including an MRI. They refused and told her that she needed a specialist to perform surgery on her knee. They also told her that without insurance, they could not assist her and that if she obtained insurance, she could return for additional care.

- 8. The hospital personnel never asked Shalynne for any detailed medical history.
- 9. The hospital personnel never asked her what her ethnicity was.
- 10. Shalynne informed the hospital staff that she was on the Nuva ring birth control.
- instruction as to how to properly use the device and prevent improper pressure from being applied by the device. Once given the immobilization device, Shalynne was told nothing further could be done for her because she needed surgery on her knee and she did not have insurance. The hospital gave her no warning about the risk of blood clots, and failed to warn her not to sit for long periods of time, despite the fact that she was not from Las Vegas. She was discharged that same day.

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- 12. Once she left the hospital, Shalynne continued to complain of pain in her knee and lower leg. Over the next three weeks, she continued to complain of pain in her knee and lower leg. She also began to appear frequently short of breath.
- 13. Once she left the hospital, she sought insurance coverage to seek surgery on her knee as instructed by the hospital personnel.
- 14. On June 25, 2015, Shalynne took a flight from Las Vegas to Missouri.
- 15. Further, affiant sayeth naught.

Dated this 29 day of May, 2016.

LELAND NELSON

Subscribed and sworn to before me this 2976 day of May, 2016.

State of Nevada County of Clark

Notary Public

CASEY D. GISH
Notary Public, State of Nevada
Appointment No. 01-67149-1
My Appt. Expires Sep 15, 2017



### AFFIDAVIT OF MARC ECKSTEIN, M.D., MPH, FACEP IN SUPPORT OF MEDICAL MALPRACTICE

| STATE OF CA | LIFORNIA    | )     |   |
|-------------|-------------|-------|---|
| COUNTY OF   | Los angeles | _) Si | 5 |

MARC ECKSTEIN, M.D., MPH, FACEP, being first duly sworn, deposes and says:

- 1. I am a medical doctor practicing in the field of Emergency Medicine. I am a Fellow of the American College of Emergency Physicians, a Diplomate and Fellow of the American Board of Emergency Medicine, and am Subspecialty Boarded in Emergency Medical Services. I am also a full-time practicing emergency physician who has been certified by the American Board of Emergency Medicine since 1994. My training and current practice in emergency medicine, coupled with my experience in the treatment of literally thousands of patients with acute leg pain, qualifies me to render opinions regarding the applicable standard of care in the present case. Furthermore, I am and was engaged in the full time practice of Emergency Medicine at all times relevant, including at all times of the alleged malpractice in the present case. I am familiar with the standard of care required at all times relevant to the care provided to Shalynne Ramos and no opinion of mine has ever been disqualified by any court.
- 2. It is my opinion that the care provided to Shalynne Ramos by Centennial Hills Hospital, including; Tanya Netz PAC; Jill Mcatee, RN and the nursing staff on June 3, 2015, fell below the standard of care as supported by my expert opinion. I am familiar with the standard of care required of the facility, physicians, and nursing staff participating at all times relevant to the care provided to Shalynne Ramos commencing from the time of her arrival in the emergency department to the time of her subsequent discharge and departure. I can state to a reasonable

degree of medical probability that the care provided to Shalynne Ramos fell below the acceptable and applicable standard of care and caused the death of Shalynne Ramos on June 28, 2015.

- My opinion is based upon a review of the following records:
  - a.) Centennial Hills Hospital; June 3, 2015.
  - b.) Research Medical Center; June 25 through June 28, 2015.
  - c.) Certificate of Death; July 22, 2015.
  - d.) Affidavit of Amy Vilela; May 29, 2016.
  - e.) Affidavit of Leland Nelson; May 29, 2016.

No further records were provided for my review.

- 4. To briefly summarize, Shalynne Ramos was a 22-year-old obese, black female smoker with sickle cell trait, who was on the Nuva Ring birth control.
- 5. In December 2014, due to chronic knee pain, Ms. Ramos underwent MR imaging in April 2015 which confirmed an ACL injury. On May 23, 2015, she drove from Missouri to Nevada (which took approximately 22 hours) and, per her family, developed increasing pain in her lower extremity distal to the knee.
- Ms. Ramos arrived in Las Vegas on May 25. Immediately upon arrival, she began complaining to her mother and her boyfriend of pain and swelling in her knee and lower leg.
- 7. On June 3, she was with her boyfriend who inadvertently injured the woman's left knee after lifting her. He took her to Centennial Hills emergency department where routine radiographs were negative. She was treated with an immobilizer and told to obtain insurance in order to secure outpatient orthopedic reevaluation.
- 8. According to the affidavits, she told the hospital that she had pain in her knee and lower leg, including the calf area. The records reflect that that she was there for pain in her knee

and below. According to the affidavit of Leland Nelson, the hospital did not ask for a detailed medical history.

- 9. According to the affidavit of Amy Vilela, Ms. Ramos had the sickle cell trait and was well aware of it. Sickle cell trait is a known increased risk for blood clots. She also had PCOS. She had the Nuva ring and was on metformin. The Nuva ring is a known increased risk for blood clots, especially when, as here, tobacco use and obesity are present.
- According to Leland Nelson, Ms. Ramos was never asked about her medical history.
- Amy Vilela, for the next three weeks, Ms. Ramos continued to complain, including to Ms. Vilela and Mr. Nelson, about the pain and swelling in her knee and lower leg, including the calf area. In addition, she became increasingly short of breath over this period. According to Mr. Nelson, Ms. Ramos was never instructed by the hospital staff or physicians regarding the proper use and pressure for the mobilization device and she was never warned about the danger of blood clots or the danger of sitting for long periods of time such as in a car or an airplane, despite the fact that she had just come to Las Vegas from out of town.
- 12. Approximately 3 weeks later, on June 25, 2015, Ms. Ramos flew back to Missouri. Shortly thereafter (that evening or early the next morning), she developed chest pain and increased shortness of breath. On June 26, 2015, she was rushed to Research Medical Center Hospital where she was diagnosed with an acute pulmonary embolism. She died there on June 28, 2015.
- 13. According to Amy Vilela, the doctors at Research Medical Center Hospital informed Ms. Vilela and Ms. Vilela's sister (Ms. Vilela's sister is an ER Nurse at Research Medical Center) that Ms. Ramos had a blood clot in her lower leg that was so massive that part of

it had broken off and gone into her lung. The doctors also informed her that due to the size of the remaining portion of the clot, despite the use of clot thinners, it was obvious to them that the clot must have been there all the way back on June 3, 2015 when Ms. Ramos went to the Centennial Hills emergency department in Las Vegas. The doctors also informed Ms. Vilela and her sister that the Research Medical Center that it was highly likely that the clot began to form when Ms. Ramos drove from Missouri to Las Vegas on May 23 to 25, 2015.

Consequently, it can be stated to a reasonable degree of medical certainty that Centennial Hills Hospital; Tanya Netz PAC; Jill Mcatee, RN and the nursing staff on June 3, 2015, fell below the standard of care and breached the applicable standard of care when they failed to take an adequate history, a list of Ms.Ramos' medications, and perform a proper physical examination. The physical exam of the affected lower extremity was a limited exam of the knee; there was no documentation of the joints above and below the knee; no mention of edema, and mention of any asymmetry when compared to the contralateral leg. Had a proper history and physical been taken the providers at Centennial Hospital ED would have considered a deep venous thrombosis (DVT) as part of their differential diagnosis, given the patient's obesity, tobacco use, sickle cell trait, her use of the NuvaRing, and her just having completed an extremely long drive. It is more likely than not that had the standard of care been met, Ms. Ramos would have had a duplex ultrasound performed during her ED visit on June 3, 2015, and with proper treatment, the DVT would not have progressed and resulted in a massive pulmonary embolism would ultimately resulted in her cardiac arrest and her demise. Ms. Ramos' presentation, along with her severe risk factors for formation of blood clots, should have led a reasonable practitioner to specifically rule-in or rule-out the presence of a blood clot in Ms. Ramos's leg. Despite these severe risk factors for formation of blood clots that this patient

presented, the ED providers and nursing staff failed to conduct an adequate examination of this patient. An adequate examination and subsequent ultrasound would, to a high degree of medical probability, have identified the blood clot that had formed in Ms. Ramos's lower leg. Such signs, symptoms, and risk factors would have led any reasonable practitioner, to order an ultrasound of Ms. Ramos leg to examine her for presence of a blood clot. To a high degree of medical probability, the ultrasound study would have been positive for a blood clot. Consequently, but for Centennial Hills Hospital, Tanya Netz PAC; Jill Mcatee, RN and the nursing staff departing from the standard of care during their management of Ms. Ramos on June 3, 2015, Ms. Ramos would still be alive. The aforementioned breaches of the standard of care resulted in the death of Ms. Ramos.

15. I am prepared testify to these facts and opinions as stated above and will provide a detailed analysis to support my opinions. All of the opinions expressed herein are offered to a reasonable degree of medical probability.

MARC ECKSTEIN, M.D., MPH, FACEP

SUBSCRIBED AND SWORN TO before me this 22 day of <u>June</u>, 2016.

Notary Public in and for Said County and State

NOTARY PUBLIC

LILY QUAN
Commission # 2114850
Notary Public - California
Los Angeles County
My Comm. Expires Jul 6, 2019

| CALIFORNIA ALL-PURPOSE ACKNOWLE | EDGMEN' | T |
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CIVIL CODE § 1189

| A notary public or other officer completing this certificat document to which this certificate is attached, and not the   | e verifies only the identity of the individual who signed the truthfulness, accuracy, or validity of that document.   |
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| Commission # 2114850 Notary Public - California Los Angeles County My Comm. Expires Jul 6, 2019   | I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.  WITNESS my hand and official seal.  Signature  Signature of Notary Public |
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# Marc Eckstein, MD, MPH, FACEP Professor of Emergency Medicine

### Business Address:

Los Angeles Fire Department 200 N. Main Street, Room 1860 Los Angeles, CA 90012 Tel: (213) 978-3741 Fax: (213) 978-3818

e-mail: marc.eckstein@lacity.org

### **Education:**

Undergraduate education:

Cornell University Ithaca, New York Bachelor of Science - 1985

Medical School:

Mount Sinai School of Medicine New York, New York **Doctor of Medicine** – 1989

Post Graduate Education:

American Public University
Manassas, Virginia
Master of Public Health (with a concentration in Homeland Security) - 2007

### Internship:

Emergency Medicine Los Angeles County/University of Southern California Medical Center Los Angeles, California Dates of internship: 1989 - 1990

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### **Medical Residency:**

Emergency Medicine Los Angeles County/University of Southern California Medical Center Los Angeles, California Dates of residency: 1990 - 1993

### Awards and Honors:

- Chief Resident 1992 1993
- Highest score ever achieved at USC in Emergency Medicine In-Service exam
- Top score in the nation among fourth year residents on 1993
   Emergency Medicine In-Service exam
- Academic Achievement Award 1993
- EMS Achievement Award California Chapter of the American College of Emergency Medicine (CAL-ACEP) 2006
- EMS Medical Director of the Year National Metropolitan EMS Medical Directors Consortium 2009
- Meritorious Service Award for Exceptional Leadership and Contributions in EMS – California State EMS Authority 2013

### **Professional Experience:**

### Emergency Physician:

| Los Angeles County/USC Medical Center<br>Los Angeles, California  | 1993 - present |
|---|----------------|
| West Hills Medical Center<br>West Hills, California               | 2011 - 2015    |
| Centinela Hospital Medical Center<br>Inglewood, California        | 2009 – 2012    |
| Pomona Valley Hospital Medical Center<br>Pomona, California       | 1992 - 2009    |
| Hollywood Presbyterian Hospital<br>Hollywood, California          | 2003 – 2004    |
| Providence-Holy Cross Medical Center<br>Mission Hills, California | 1997 - 1998    |
| California Medical Center<br>Los Angeles, California              | 1993 - 1994    |
| Verdugo Hills Hospital<br>Glendale, California                    | 1991 - 1993    |

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### Professional Experience (cont'd):

#### Paramedic:

New York City EMS Paramedic

1987 - 1989

\* Only paramedic ever certified in the City of New York after completion of only a two week "paramedic refresher course" in lieu of a complete 1000 hour program \*

### Emergency Medical Technician:

New York City EMS Emergency Medical Technician 1986 -1987

### **Board Certification:**

Diplomate of the American Board of Emergency Medicine 1994
Fellow of the American Board of Emergency Medicine 1996
Subspecialty Boarded in Emergency Medical Services 2013

### Licensure:

California Physician and Surgeon: License # G 69852

### **Academic Appointment:**

Assistant Professor of Emergency Medicine, University of
Southern California School of Medicine 1993

Associate Professor of Emergency Medicine,
Keck School of Medicine of the University of Southern California 2002

Professor of Emergency Medicine and Clinical Scholar
Keck School of Medicine of the University of Southern California 2009

### **Professional Certifications:**

Advanced Cardiac Life Support (ACLS) Instructor

Advanced Trauma Life Support (ATLS) Instructor

Advanced Burn Life Support (ABLS) Provider

Pediatric Advanced Life Support (PALS) Instructor

Neonatal Advanced Life Support (NALS) Provider

California Base Station Physician Certification Course Director

National EMS Medical Director's Course and Practicum Participant

Hazardous Materials "HAZ-MAT" First Responder - Operational Certification

Nuclear, Biological and Chemical Weapons Emergency Responder - Hospital Technician Instructor

Nuclear, Biological and Chemical Weapons Emergency Responder - EMS Technician Instructor

Confined Space Rescue Certification - California Office of Emergency Services

Rescue Systems 1 - Urban Search and Rescue Certification - California OES

Peace Officer - State of California Commission on Peace Officer Standards and Training

FEMA - Weapons of Mass Destruction - Advanced Operations Certification

Chemical, Ordnance, Biological, Radiological Agent (COBRA) Incident Commander

### **Community Service:**

Medical Director - Automated External Defibrillator (AED) Program - City of Los Angeles

-Coordinating and providing medical oversight for the implementation of a new public access AED program in Los Angeles. This involves the placement of AEDs in public libraries, City Hall, police stations, the zoo and other large public venues. City employees will be trained in CPR and the AED on a voluntary basis.

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## Medical Director – Automated External Defibrillator (AED) Program – Los Angeles International Airport

Coordinating and providing medical oversight for the implementation of a new public
access AED program in Los Angeles International Airport (LAX). AEDs will be strategically placed
throughout every terminal in LAX and airport employees will be trained in CPR and AEDs.
 Based upon the success of a similar program in Chicago, it is anticipated that this program will
save a number of lives each year.

### Medical Director – Automated External Defibrillator (AED) Program – City of San Fernando Police Department

Coordinated the implementation of a new AED program for police officers in San
 Fernando to improve survival rates from cardiac arrest in that city. This is the first local program utilizing police officers to use AEDs.

### Reserve Police Officer - City of San Fernando Police Department

 Level III reserve police officer, certified by the California Commission on Peace Officer Standards and Training (POST). Duties primarily consist of assisting with major events, station duties, ongoing training activities, and community outreach.

## Federal Emergency Management Agency (FEMA) Disaster Medical Assistance Team Member (CA-DMAT # 9)

-Member of the National Disaster Medical System team which is able to respond to major disasters anywhere in the United States.

### Medical Team Manager - FEMA Urban Search and Rescue Team (CA-TF#1)

-Leader of the Medical Group for this federally funded team which is on call to respond to major incidents which may involve trapped victims anywhere in the United States. This is one of only seven teams in the US that are trained to respond to incidents involving weapons of mass destruction (WMD). The team's first deployment was to the site of the World Trade Center tragedy in New York City.

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### **Current EMS-related activities:**

EMS Division Chief - Department of Emergency Medicine, Keck School of Medicine of the University of Southern California

- The EMS Division Chief is responsible for overseeing the operation of the base station at the Los Angeles County/USC Medical Center, which is the busiest base station in Los Angeles County. This involves the development of continuing education programs, quality improvement studies, supervision of off-line and on-line medical control, disaster planning, and development of clinical research studies. In addition, the EMS Division Chief directly supervises the other faculty members within the EMS Division and also serves as the liaison between the Dept of Emergency Medicine and the EMS community, serving on numerous EMS committees at both the local and regional levels. Another vital role is that of teaching emergency medicine residents about all aspects of prehospital care. This includes direct resident supervision, a formal continuing education didactic program, and running an annual base station physician certification course.

Fellowship Director – EMS Fellowship, Department of Emergency Medicine, Keck School of Medicine of the University of Southern California

-Fellowship director of the ACGME-accredited EMS Fellowship at LAC/USC Medical Center and LAFD.

### Medical Director - Los Angeles Fire Department

-The Medical Director is responsible for overseeing the EMS activities of the Los Angeles Fire Department (LAFD), which is the nation's second largest EMS system. LAFD is a fire department - based EMS system, with every firefighter a certified emergency medical technician or a licensed paramedic. The LAFD serves a population of 3.8 million people and responds to over 350,000 emergency medical calls per year. The Medical Director is involved with all issues that pertain to preparation for and the delivery of emergency medical care. This includes the development of training programs, continuing education curricula, emergency resource dispatch algorithms, disaster preparedness, quality improvement programs, introduction of new equipment, policy and procedure formulation, clinical research, patient care treatment protocols, and emergency response for on-scene medical direction and patient care, particularly at multiple casualty incidents. In addition, the Medical Director serves on a number of county-wide EMS committees, serving as the liaison between the fire service and the medical community.

## Major Accomplishments as the LAFD Medical Director (1996-2016):

- Implementation (and expansion) of Standing Field Treatment Protocols (SFTPs).
   -SFTPs are a set of algorithms that allow field paramedics to treat patients with advanced life support interventions without the need to call for on-line medical control. This expedites patient care and allows both paramedics on scene to treat the patient, rather than relegating one paramedic to communications with their base.
- Creation (and Chairman) of the EMS Steering Committee.
  - -The EMS Steering Committee was formed to fill the void that was created with the elimination of the Bureau of Emergency Medical Services in 1996. The committee, which is comprised of members from all different aspects of the department, makes recommendations to the Fire Chief regarding all aspects of the LAFD's EMS program.
- Introduction of paramedic assessment engines (PAEs).
  - -PAEs have one paramedic with all the necessary advanced life support equipment to provide life-saving stabilization for nearly any medical emergency. The Medical Director created an orientation and training program for all engine companies that were being upgraded to PAE, wrote a departmental bulletin to describe the PAE concept and its capabilities, and successfully negotiated with DHS to add certain medications to be included on its drug inventory.
- Introduction of new paramedic communication system with receiving hospitals.

  Sourced budgeting for cellular talent area for all leaves of the system.
  - -Secured budgeting for cellular telephones for all paramedic resources and worked extensively with fire command and control system (FCCS) personnel to obtain ReddiNet computer system for the dispatch center (OCD). This system, integrated with existing mobile data terminals (MDTs) on all ambulances, has enabled paramedics to determine hospital diversion status and notify receiving hospitals of their patients without calling a base station or OCD. LAFD is currently the first and only provider agency using this new technology.

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- Introduction of up-gradable semi-automatic/manual defibrillator/monitors.
  - -New defibrillator/cardiac monitors were evaluated and purchased to enable firefighter/
    EMT-Ds to operate them on cardiac arrest patients and for the paramedic on the assessment
    engines to use them for routing cardiac monitoring, thus providing automatic and manual
    operation in one unit.
- Introduction of the Kendrick Extrication Device (KED).
  - -The KED is a versatile short immobilization device that is now carried on all BLS and ALS LAFD ambulances. A comprehensive training program was created to facilitate their introduction in the field.
- Placement of spinal immobilization backboards on every fire engine.
  - -Currently different types of backboards are being field tested after approval has been given to place a backboard on all engine companies. This will expedite care of the trauma patient and allow more rapid evacuation of the patient.
- Compilation of city-wide cardiac arrest data.
  - -A study is currently in progress to determine the overall cardiac arrest survival rate in Los Angeles along with measuring the impact of various elements of our BLS and ALS interventions on cardiac arrest patients. No such attempt has been made in the past to determine these parameters, which are used as national benchmarks of the success of any EMS program.
- Introduction of digital glucometers.
  - -Conducted field testing and obtained approval for purchase of highly accurate and rapid measuring devices to determine patients' blood sugar, which are now carried on all advanced life support resources.

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- Implementation of department-wide tuberculosis screening.
  - -Worked with medical liaison, department safety officer, employee labor union, and city employee health to implement TB screening for all field personnel.
- Awarded total of \$ 265,000 in grant funding for city-wide stroke study.
  - -Received funding to implement ground-breaking prehospital stroke study involving multiple medical facilities and all paramedic rescues. Hired two full time research assistant with the grant funding.
- Completion of several EMS studies with publication in peer-reviewed medical journals. (See listing under "Publications" beginning on page 13.)
- Approval and implementation of patient transportation contract between LAFD and Kaiser Permanente.
  - -Initiated negotiations and worked out the details of a "first of its kind" agreement between a fire department and a managed care organization, which led to an additional \$750,000 in revenue for LAFD in its first year of implementation.
- Contribution of numerous articles for the Quality Improvement Newsline.
  - -Wrote educational articles with a focus on "lessons learned" to provide proactive risk management.
- Creation and implementation of EMS "Standard Operating Guidelines" (SOGs).
   -Introduced an organized and systematic task-oriented approach to all EMS incidents, improving patient care and providing size-ups to incoming ALS resources.
- Introduction of disposable bag-valve-masks (BVMs) and endotracheal tube (ET) confirmation devices.
  - -Field tested, gained approval for purchase of, and created comprehensive training program for new disposable BVMs with life-saving devices to confirm proper placement of endotracheal tubes. This standard was eventually adopted by Los Angeles County.

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- Major modifications and improvements to the medical priority dispatch system.
  - -Elimination of primary and secondary "target" areas, which allowed the closest resource to respond to medical emergencies.
  - -Elimination of "restricted area" status for several districts (RFS 97 and 99) which allowed certain paramedic engines to respond to life-threatening medical emergencies if they were the closest ALS resource.
  - -Eliminated redundant dispatching of multiple resources to single patient incidents in certain districts of the city (RFS 78 and 102).
  - -Gained approval to send the closest BLS resource ahead of a more distant ALS resource to potentially life-threatening medical emergencies ("C" level dispatches).
  - -Created dual dispatching of ALS and BLS ambulances to eliminate fire engine companies from a significant number of incidents. This allowed ALS ambulances to remain available and have the BLS ambulance provide patient transport when appropriate.
- Coordinated meetings between LAFD resources and health care personnel at local correctional facilities.
  - -Established a liaison with representatives from LASD's jail facilities to improve transition of patient care from those facilities to LAFD resources. Also established guidelines for proper utilization of LAFD resources for inmates.
- Implemented one paramedic- ALS staffing trial program for San Fernando Valley
   Coordinated, organized, and set up the training program for a new staffing configuration for single paramedic staffing on all ALS resources in order to get a paramedic on-scene with every first responding resource.

- Secured nerve agent antidote for all firefighters and paramedics.
  - -Obtained MARK-1 nerve agent antidote kits for all firefighters and paramedics and set up an in-service training program to enable first responders to treat themselves and their partners in the event of a terrorist attack with nerve agents.
- Secured the immediate hiring of 150 licensed paramedics to offset a staffing crisis
   -Worked with the Los Angeles Fire Commission and the LA City Council and Mayor's Office to submit and gain approval for a motion to immediately hire 100 additional civilian paramedics to offset a paramedic staffing crisis in the LAFD.
- Introduced non-invasive blood pressure, pulse oximetry, and waveform capnography for field paramedic resources
  - -These diagnostic modalities have dramatically improved the prehospital assessment and treatment of patients and further minimized the chances of unrecognized esophageal intubations.
- Introduced 12 lead ECG in the field
  - -The use of prehospital 12 lead ECG have enabled paramedics to identify acute ST-segment acute myocardial infarctions in the field in order to expedite time-critical interventions and transport directly to the appropriate hospitals. This equipment was placed into service in August '03, and is now on all 125 advanced life support resources in Los Angeles.
- Introduced concept of STEMI-Receiving Centers (SRCs) in Los Angeles
   Led efforts to designate hospitals with cardiac cath labs in Los Angeles to be designated as
   STEMI-Receiving Centers (SRCs), where paramedics divert patients with acute ST-segment acute myocardial infarctions rather than merely transporting to the nearest facility. This program now includes 31 hospitals located throughout the County and is setting the model for acute cardiac care in the nation.

### Major Accomplishments as the LAFD Medical Director (continued):

- Added extremity trauma with neuro-vascular compromise to Trauma Center Criteria
   This addition to the existing trauma center criteria allowed patients a better chance for limb salvage after limb-threatening trauma by directing them to trauma centers instead of the closest hospital.
- Implemented significant changes to EMS dispatch algorithms
   -Introduced the concept of dispatching a BLS and ALS ambulance together on certain types of ALS calls, instead of a fire engine with an ALS ambulance. This resulted in fewer BLS transports by ALS ambulances and increased availability of both ALS ambulances and engine
- Started EMS Fellowship training site
   Serves a Fellowship Director for Society for Academic Emergency Medicine (SAEM) approved EMS Fellowship at LAC/USC Medical Center and the Los Angeles Fire Department.
   companies. Also implemented the dispatch of the closest resource to all EMS incidents.

companies. Also implemented the dispatch of the closest resource to all EMS incidents.

- Started EMS Fellowship training site
   Serves a Fellowship Director for Society for Academic Emergency Medicine (SAEM) approved EMS Fellowship at LAC/USC Medical Center and the Los Angeles Fire Department.
- Introduced Transcutaneous Cardiac Pacing
- -Non-invasive modality to treat patients with symptomatic slow heart rates in the field
- Introduced Continuous Positive Airway Pressure (CPAP) to the field
   Non-invasive modality shown to reduce morbidity and mortality for respiratory distress patients.
- Created and implemented LAFD Tiered Dispatch System
- -Organized a workgroup to develop, design, and implement a brand new, fully customized 911 EMS dispatch system for the City of Los Angeles

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### Major Accomplishments as the LAFD Medical Director (continued):

- Secured funding, then created and implemented LAFD Nurse Practitioner Response Unit (NPRU)
  - -innovative pilot program placing an NP with a paramedic in the field with an expanded scope of practice to perform comprehensive patient assessments to obviate the need for ambulance transport of low acuity patients
- Secured funding, then created and implemented LAFD Fast Response Vehicle
  - -pilot program placing paramedics in a rapid response vehicle to decrease response times, improve patient care, and increase operational efficiency

### **Professional Activities:**

#### Committee Service:

| 2009 – 2011 | Chairman, EMS Section<br>American College of Emergency Physicians (ACEP)   |
|-------------|--|
| 2006 -      | Steering Committee Member<br>National EMS Project Initiative – Department of Homeland Security<br>George Washington University                                     |
| 2005 -      | Board of Directors Member<br>National Assn of Emergency Medical Services Physicians (NAEMSP)   |
| 2005 -      | Peer review member, Grant Review Consortium<br>American Heart Association  |
| 2005 -      | Member – Restore Efffective Survival in Shock (RESUS) Advisory Board Multicenter hemoglobin-based oxygen carrier study funded by the Naval Medical Research Center |
| 2003 - 2009 | Member-at-Large<br>EMS Section<br>American College of Emergency Physicians (ACEP)  |
| 2002 -      | Member – National Institute of Neurological Disorders and Stroke (NINDS) Public Recognition of Stroke Task Force   |
| 2002 -      | Member – CDC Bioterrorism Advisory Committee<br>County of Los Angeles Department of Health Services  |

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### **Professional Activities:**

| 2001 -     | Member - College of Fellows<br>National Academy of Emergency Medical Dispatch                                  |
|------------|--|
| 2001 -     | Member - Committee on Anti-Terrorism<br>National Association of EMS Physicians (NAEMSP)                        |
| 2001 -     | Member - Metropolitan Medical Response Anti-Terrorism Group<br>Los Angeles Regional Unified Response System    |
| 2000 -     | Member – EMS Subcommittee<br>Los Angeles Fire Commission   |
| 2000 -     | Member – Operation Heartbeat Committee<br>American Heart Association   |
| 2000 -     | Los Angeles County Biological Terrorism Advisory Committee<br>Los Angeles County Department of Health Services |
| 1997 -1999 | Chairman - EMS Steering Committee<br>Los Angeles Fire Department   |
| 1996 -     | Chairman - Medical Advisory Committee<br>Los Angeles Fire Department   |
| 1996 -     | Chairman - Infectious Disease Control Committee<br>Los Angeles Fire Department                                 |
| 1996 -     | Provider Agency Committee<br>Los Angeles County EMS Agency   |
| 1996 -     | Faculty Recruitment Committee Department of Emergency Medicine Los Angeles County/USC Medical Center           |
| 1994 -     | Medical Advisory Council<br>Los Angeles County EMS Agency  |
| 1994 -1996 | Base Station Reconfiguration Committee<br>Los Angeles County EMS Agency  |
| 1993 -1996 | Prehospital Care Committee<br>Los Angeles County EMS Agency  |
| 1993 -     | Trauma Quality Assurance Committee<br>Los Angeles County/USC Medical Center                                    |
| 1993 -     | Emergency Medicine Quality Assurance Committee<br>Los Angeles County/USC Medical Center                        |

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### Professional Activities (cont'd):

1993 - Emergency Medicine Peer Review Committee

Los Angeles County/USC Medical Center

1993 - Disaster Preparedness Committee

Los Angeles County/USC Medical Center

1992 - EMS Committee

California Chapter, American College of Emergency Physicians

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Saver JL, Starkman S, *Eckstein M*, et al. Results of the field administration of stroke treatment-magnesium (FAST-MAG) pilot trial: A study of neuroprotective therapy. *Stroke 2002: in press.* 

**Eckstein M.** The impact of emergency department overcrowding on paramedic ambulance availability. *Annals of Emergency Medicine* 2003;42:S72.

**Eckstein M,** Starkman S, Saver J, Kidwell C. Tissue plasminogen activator (T-PA) for acute stroke: The Los Angeles Prehospital Stroke Study (LAPSS). *Annals of Emergency Medicine* 2003;42:S94.

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**Eckstein** M. Cyanide as a chemical terrorism weapon. *Journal of Emergency Medical Services* 2004;29:suppl 22-31.

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Eckstein M, Herbert M, Henderson SO. EMS and managed care. Acad Emerg Med 2006:13;S154-S155.

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### Publications (continued):

### Abstracts (cont'd):

**Eckstein M**, Pratt FD, Cooper EM, Nguyen T. Impact of Paramedic Transport with Out-of-Hospital 12-Lead ECG on Door-to-Balloon Times for ST Segment Myocardial Infarction (STEMI) Patients. *Annals of Emergency Medicine*. 2007; 50: S56.

**Eckstein M**. Impact of an EMS Rapid Dispatch Program on 911 Call Processing and Response Times. *Annals of Emergency Medicine*. 2007; 50: S56.

Eckstein M, Tadeo R, Rokos IC, Koenig WJ. Implementation of STEMI-Receiving Centers in a Large EMS System. Annals of Emergency Medicine. 2007; 50: S57

De la Torre J, **Eckstein M**. Occult Pneumothorax and Hemothorax in Major Trauma Patients. Annals of Emergency Medicine 2008;52:S97-S98.

**Eckstein M.** Impact of New CPR/Advanced Cardiac Life Support Guidelines on Outcome from Out-of-Hospital Cardiac Arrest. *Annals of Emergency Medicine* 2008;52:S69.

Eckstein M, Tadeo R, Koenig W. Evolution of a STEMI Care System: The Los Angeles Experience. Annals of Emergency Medicine 2010;58:S261.

Eckstein M. Trends in Out-of-Hospital Cardiac Arrests in Los Angeles. Annals of Emergency Medicine 2010;58:S262.

Sanossian N, Liebeskind DS, Starkman S, Bath PM, Hamilton S, *Eckstein M*, et al. Elevated Prehospital Blood Pressure Predicts Further Worsening Before Hospital Arrival in Intracerebral Hemorrhage but not in Ischemic Stroke Patients. *Cerebrovascular Diseases* 2011;31(S2)73.

Sanossian N, Mack WJ, Starkman S, Liebeskind DS, HamiltonS, *Eckstein M*, et al. Field Neuroprotective Therapy Followed by Endovascular Recanalization Treatments in a Phase 3 Clinical Trial. *Cerebrovascular Diseases* 2011;31(S2)73.

Sanossian N, *Eckstein M*, Stratton S, et al. Recruitment of Stroke Patients into Prehospital Research Before and After Implementation of a System-Wide Stroke Triage Policy. Stroke,2012; 42(3) e146.

Restrepo L, Sanossian N, Hamilton S, Liebeskind DS, Ali LK, Conwit R, *Eckstein M*, et al. Stroke Mimics in a Prehospital Stroke Treatment Trial. Stroke 2012, 41(4) e2

Sanossian N, Starkman S, Hamilton S, Liebeskind DS, *Eckstein M*, et al. Development and Validation of a Clinical Scale Distinguishing Hemorrhagic and Ischemic Stroke in the First Two Hours after Onset. Stroke 2012;41(4) e2

Sanko S, *Eckstein M.* Emergency Medical Service Frequent User Resource Utilization: The Los Angeles Experience. *Ann of Emerg Med* Vol. 62, Issue 4, Supplement, Page S145.

Sanko S, *Eckstein M.* Characteristics of the most frequent "super users" of emergency medical services. *Ann of Emerg Med* Vol. 62, Issue 4, Supplement, Page S145.

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### Publications (continued):

### Abstracts (cont'd):

**Eckstein M**, Flores J, Sanko S, Schlesinger S, Levine M. Emergency medical dispatch consultation of poison control center can decrease EMS transports and charges. *Prehosp Emerg Care* 2014;18:126.

Milano P, Sanko S, *Eckstein M*. Acute ischemic stroke patients receive thrombolytic therapy at a higher rate when transported by EMS. *Prehosp Emerg Care* 2014;18:128.

Sanko S, *Eckstein M*. Initial Glasgow Coma Score upon ED arrival after out-of-hospital cardiac arrest is not a predictor of discharge neurologic status. *Prehosp Emerg Care* 2014;18:135.

Sanko S, *Eckstein M*. Emergency Medical Service "super-user" resource utilization: The Los Angeles Experience. *Prehosp Emerg Care* 2014;18:159.

Schlesinger S, Sanko S, *Eckstein M*. Interfacility transports between emergency departments using the 911 EMS system. *Prehosp Emerg Care* 2014;18:159.

Sanko S, *Eckstein M.* Characteristics of the most frequent "super-users" of emergency medical services. *Prehosp Emerg Care* 2014;18:159.

Bosson N, *Eckstein M*, Sanko S, et al. Causes of false positive and false negative softward interpretation of ST-elevation myocardial infarction in out-of-hospital electrocardiogram. *Ann Emerg Med* 2015;66:S47

Sanko S, *Eckstein M*, Bosson N, et al. Accuracy of out-of-hospital automated ST segment elevation myocardial infarction detection by Lifepak 12 and 15 devices: The Los Angeles Experience. *Ann Emerg Med* 2015;66:S6.

Sanko S, *Eckstein M*, Bosson N, et al. Differences in out-of-hospital electrocardiogram test characteristics by patient sex and ethnicity in a large urban area. *Ann Emerg Med* 2015;66:S49.

#### Textbook Chapters:

Newton E, *Eckstein M.* Medical Complications of Pregnancy. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): *Emergency Medicine: Concepts and Clinical Practice*. St. Louis, MO; Mosby, 4<sup>th</sup> edition: 1997; pp. 2404-2417.

Eckstein M, Stratton S. Prehospital Trauma Care. (Book chapter) In: Trauma Secrets. Naude G, Bongard F, Demetriades D (eds.), Philadelphia, PA; Hanley and Belfus, 1998; pp.1-8.

**Eckstein M.** Prehospital Management of the Head Injured Patient. (Book chapter) In: Emergency Management of Head Trauma. Newton E (ed.), New York, NY; Cambridge University Press, 2001.

Stratton S, *Eckstein M.* Prehospital Trauma Care. (Book chapter) In: *Trauma Management*. Demetriades D, Asensio J (eds.), Georgetown, TX; Landes Bioscience, 2000; pp. 1-14. In Kuehl A (ed): *Prehospital Systems and Medical Oversight*. 3<sup>rd</sup> edition: 2002 pp.68-74.

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### Textbook Chapters (cont'd):

Eckstein M, Henderson S. Thoracic Trauma. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): Emergency Medicine: Concepts and Clinical Practice. St. Louis, MO; Mosby, 5<sup>th</sup> edition: 2002; pp. 381-414.

Newton E, *Eckstein M.* Medical Complications of Pregnancy. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): *Emergency Medicine: Concepts and Clinical Practice.* St. Louis, MO; Mosby, 5<sup>th</sup> edition: 2002; pp. 2434-2446.

Eckstein M, Pratt F. Fire-based EMS. In Kuehl A (ed): Prehospital Systems and Medical Oversight. 3rd edition: 2002 pp.68-74.

**Eckstein M**, Stratton S. Prehospital Trauma Care. (Book chapter) In: Trauma Secrets (2<sup>nd</sup> ed.). Naude G, Bongard F, Demetriades D (eds.), Philadelphia, PA; Hanley and Belfus, 2003, pp 1-8.

*Eckstein M,* Fowler R. Scene Preparedness. (Book Chapter) In: *Medical Response to Terrorism.* Keyes C, Swienton R, Burstein SL (eds), Philadelphia, PA; Lippincott Williams and Wilkins, 2005 pp 226-234.

Eckstein M, Henderson S. Thoracic Trauma. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): Emergency Medicine: Concepts and Clinical Practice. St. Louis, MO; Mosby, 6th edition: 2004.

Eckstein M, Henderson S. Thoracic Trauma. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): Emergency Medicine: Concepts and Clinical Practice. St. Louis, MO; Mosby, 7th edition: 2008

**Eckstein M,** Pratt F. Fire-based EMS. In: *Emergency Medical Services: Clinical Practice and Systems Oversight*, Cone DC, Fowler R O\*Connor RE (eds). Textbook of the National Association of EMS Physicians, Kendall-Hunt Publications, Dubuque, IA, 2009.

**Eckstein M**, Racht EM, Pepe PE. Termination of resuscitation in the out-of-hospital setting. In: Emergency Medical Services: Clinical Practice and Systems Oversight, Cone DC, Fowler R O\*Connor RE (eds). Textbook of the National Association of EMS Physicians, Kendall-Hunt Publications, Dubuque, IA, 2009.

Eckstein M. Thoracic Trauma. In: Paramedic Practice Today, Aehlert B (ed.) Elsevier-Mosby JEMS, St. Louis, MO, 2010.

Eckstein M, Henderson S. Thoracic Trauma. (Book chapter) In Rosen P, Baker FJ, Barkin RM, et al (eds.): Emergency Medicine: Concepts and Clinical Practice. St. Louis, MO; Mosby, 8th edition: 2012.

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### Non-Peer Reviewed Articles:

Eckstein M. Fearing the Elderly Patient with New Onset Wheezing. (Book Chapter) In Lawner, B, Slovis C, Fowler F, et al (eds.): Avoiding Common Prehospital Errors, 2012.

Eckstein M, Henderson S. Thoracic Trauma. (Book chapter) In Marx J, Hockberger R, Walls R et al (eds.): Emergency Medicine: Concepts and Clinical Practice. St. Louis, MO; Mosby, 8th edition: 2014

Eckstein M, Hutson R. Street gangs: Save yourself while saving a life. Emergency Medical Services 1994;23:18-22.

Eckstein M. Risk management 101 for EMS providers. Los Angeles Fireman's Relief Association Grapevine 1998;73:23-25.

Eckstein M. Risk management 201: Lessons learned. Los Angeles Fireman's Relief Association Grapevine 1998;73:31-37.

Eckstein M. Cardiac arrest: Focusing on the priorities. Los Angeles Fireman's Relief Association Grapevine 1998;73:37-39.

**Eckstein M.** Hepatitis C: A primer for firefighters and paramedics. Los Angeles City Fire Department Departmental Bulletin No. 99-3, 1999.

Eckstein M. The Case of the Month: Penetrating Neck Injuries. Los Angeles Fireman's Relief Association Grapevine 1999;74.

Eckstein M. Cardiac Arrest: Why all the Fuss? Los Angeles Fireman's Relief Association Grapevine 1999;74.

**Eckstein M.** Airway Management: A Dynamic Process. Los Angeles Fireman's Relief Association Grapevine 1999;74.

Eckstein M. The Case of the Month: Cardiac Tamponade. Los Angeles Fireman's Relief Association Grapevine 1999;74.

Eckstein M. The Case of the Month: Tension Pneumothorax. Los Angeles Fireman's Relief Association Grapevine 2000;75.

Walsh DW, *Eckstein M*. Hydrogen cyanide in fire smoke: an unrecognized threat. *Emergency Medical Services* October 2004.

Eckstein M. The Case of the Month: Syncope. Los Angeles Fireman's Relief Association Grapevine 2007;83:3.

Eckstein M. The Case of the Month: Pediatric Seizure. Los Angeles Fireman's Relief Association Grapevine 2007;83:3.

Eckstein M. The Case of the Month: Excited Delerium. Los Angeles Fireman's Relief Association Grapevine 2007;83:3.

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### Non-Peer Reviewed Articles (Cont'd):

Eckstein M. The Case of the Month: STEMI. Los Angeles Fireman's Relief Association Grapevine 2007;82:34-35.

Eckstein M. The Case of the Month: The Missed MI. Los Angeles Fireman's Relief Association Grapevine 2008;83:44-45.

Eckstein M. The Ambulance Industry Struggles to Go the Distance. Health Affairs 2013;32:2067-2068.

### **Professional Organizations:**

American College of Emergency Physicians (ACEP)

California Chapter of the American College of Emergency Physicians (CAL-ACEP)

National Association of EMS Physicians (NAEMSP)

California State Firefighters' Association (CSFA)

### **Consulting Activities:**

1996 - Present: Medical Expert, City of Los Angeles, District Attorney's Office

1996 - Present: Medical expert for various legal cases in emergency medicine and emergency medical services

## Postgraduate Education:

2007 - Master of Public Health (with a concentration in Homeland Security)
American Public University
Manassas, Virginia

1999 – P.C. 832: Powers of Arrest Course, certified by the California Commission on Peace Officer Standards and Training (POST)

1996 – Executive Management Development Program for Physicians, University of Southern California School of Business Administration

### **Invited Lectures and Abstract Presentations:**

"The increasing role of firearms in gang related homicides in Los Angeles." Society of Academic Emergency Medicine (SAEM) annual meeting Washington, DC (May, 1994)

"EMS: Past, present, and future." EMS Week Annual Conference Pasadena, California (May, 1994)

"Current Controversies in EMS."
The 12th annual EMS Conference
Santa Barbara, California (November, 1994)

"Medical Direction of Emergency Medical Technicians."

California State EMS Authority - EMT Workshop.

Sacramento, San Francisco, and Beverly Hills ,California (March, 1995)

"Personal safety and ownership of firearms among emergency physicians." Society of Academic Emergency Medicine (SAEM) annual meeting San Antonio, Texas (May, 1995)

"Medications and illnesses during pregnancy."

American College of Emergency Physicians (ACEP) National Scientific Assembly Washington DC (September, 1995)

"Outcomes of major trauma patients with prehospital airway intervention." American College of Emergency Physicians (ACEP) Annual Research Forum Cincinnati, Ohio (February, 1996)

"Trauma '96: An Update for Prehospital Providers." 1996 Annual EMS Expo Atlanta, Georgia (April, 1996)

"Prehospital airway management of the major trauma patient."

University of Southern California Annual Trauma/Critical Care Symposium

Pasadena, California (May, 1996)

"EMS: Tomorrow and Beyond" California State Firefighter's Association's Annual EMS Seminar Northridge, California (October, 1996)

"Current Controversies in EMS"
USC Department of Emergency Medicine Grand Rounds
Los Angeles, California (April, 1996)

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### Invited Lectures (continued):

"Paramedic Base Station EMS Run Review"

Monthly presentation at Emergency Medicine Department Grand Rounds
Los Angeles County/University of Southern California Medical Center
Los Angeles, California (1993 - present)

Keynote speaker
Paramedic Training Institute Graduation Ceremony
Torrance, California (March, 1997)

"The Role of Prehospital Intubation in the Major Trauma Patient"

University of Southern California Annual Trauma/Critical Care Symposium

Pasadena, California (May, 1997)

"Prehospital triage and treatment of stroke."

"Emergency Department triage and treatment of stroke."

American Academy of Neurology Acute Stroke Management Workshops
San Diego, California (May, 1997)

"The Role of Intravenous Fluids in Prehospital Care of the Trauma Patient" Los Angeles County Annual EMS Seminar
Los Angeles, California (September, 1997)

"Needle Thoracostomy in the Prehospital Setting"

American College of Emergency Physicians Annual Research Forum
San Francisco, California (October, 1997)

"A Comparison of Metered Dose Inhalers versus Nebulizers for the Treatment of Acute Asthma in the Prehospital Setting"

American College of Emergency Physicians Annual Research Forum

San Francisco, California (October, 1997)

"Impact of a focused quality improvement program on paramedic . on-scene times with major trauma patients"

American College of Emergency Physicians Annual Research Forum San Francisco, California (October, 1997)

"Trauma Update"
Santa Barbara County Health Care Services Annual EMS Conference
Santa Barbara, California (October, 1997)

"Prehospital Airway Management in the Major Trauma Patient" Sharp Memorial Medical Center Trauma Grand Rounds San Diego, California (December, 1997)

"Introduction to Anti-terrorism: The Nerve Agents" USC Department of Emergency Medicine Grand Rounds Los Angeles, California (January, 1998)

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### Invited Lectures (continued):

"Paramedic On-Scene Times for Major Trauma Patients"

University of Southern California Annual Trauma/Critical Care Symposium

Pasadena, California (May, 1998)

"Stroke for the Primary Care Physician: ER Management of Stroke"

American Heart Association Multidisciplinary Stroke Symposium

Los Angeles, California (May, 1998)

On-Scene Termination of Resuscitation Efforts for the Trauma Patient" Society for Academic Emergency Medicine Annual Meeting Chicago, Illinois (May, 1998)

"Automatic external defibrillators"

Meeting of the City of Los Angeles Fire Commission
Los Angeles, California (June, 1998)

"Implementation of standing field treatment protocols in Los Angeles" American College of Emergency Physicians Annual Research Forum San Diego, California (October, 1998)

"Prehospital Management of Burns"

Torrance Memorial Medical Center Burn Conference
Torrance, California (November, 1998)

"Air Ambulance Utilization for Pediatric Patients in an Urban EMS System" SAEM Western Regional Research Forum Redondo Beach, California (March, 1999)

"Paramedic Evaluation of Patients with Suspected Stroke" SAEM Western Regional Research Forum Redondo Beach, California (March, 1999)

"Prehospital Identification of Acute Stroke" SAEM Western Regional Research Forum Redondo Beach, California (March, 1999)

"Prehospital Management of Burns: A Case-Based Review" Torrance Memorial Medical Center 2<sup>nd</sup> Annual Burn Conference Torrance, California (May, 1999)

"Air Ambulances: Lessons Learned from the LA Experience" University of Southern California Annual Trauma/Critical Care Symposium Pasadena, California (June, 1999)

"Introduction to Anti-Terrorism: The Nerve Agents"

University of Southern California Annual Medicine Refresher Course

Maui, Hawaii (August, 1999)

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### Invited Lectures (continued):

"Update in Trauma Management for Primary Care Providers"

University of Southern California Annual Medicine Refresher Course

Maui, Hawaii (August, 1999)

"New Emergency Airway Adjuncts"

University of Southern California Annual Medicine Refresher Course

Maui, Hawaii (August, 1999)

"Emergency Recognition and Management of Acute Stroke" University of Southern California Annual Medicine Refresher Course Maui, Hawaii (August, 1999)

"EMS Literature Update"

University of Southern California Annual Medicine Refresher Course

Maui, Hawaii (August, 1999)

"Prehospital identification of acute stroke."

American College of Emergency Physicians Annual Research Forum
Las Vegas, Nevada (October, 1999)

"Paramedic evaluation of patients with suspected stroke."

American College of Emergency Physicians Annual Research Forum
Las Vegas, Nevada (October, 1999)

"Air ambulance utilization for pediatric patients in an urban EMS system."

American College of Emergency Physicians Annual Research Forum

Las Vegas, Nevada (October, 1999)

"EMS System Showcase: Los Angeles City"

National Association of EMS Physicians (NAEMSP) Annual Meeting

Dana Point, California (January, 2000)

"Prehospital Airway Management of the Trauma Patient"

University of Southern California Annual Trauma/Critical Care Symposium

Los Angeles, California (June, 2000)

Keynote Speaker
UCLA Paramedic School Graduation Ceremony
Los Angeles, California (November, 2000)

"Termination of Field Resuscitation of Traumatic Arrests"

EMS State of the Science: A Gathering of Eagles Conference

Dallas, Texas (February, 2001)

"Use of tPA in acute stroke patients identified by paramedics utilizing the Los Angeles prehospital stroke screen"

Society for Academic Emergency Medicine Western Regional Research Forum

Newport Beach, California (March, 2001)

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### Invited Lectures (continued):

"Air versus ground transportation for trauma patients"
USC/US Naval Medical Center Trauma/Critical Care Symposium
Pasadena, California (April, 2001)

"Disaster Medicine"

American Academy of Physician Assistants Annual Conference
Anaheim, California (May, 2001)

Cardiac Arrest Resuscitation Evaluation in Los Angeles: CARE-LA National Association of EMS Physicians Annual Meeting Tucson, Arizona (January, 2002)

"Field Termination of Out-of-Hospital Cardiac Arrests" National Association of EMS Physicians Annual Meeting Tucson, Arizona (January, 2002)

"EMS Medical Direction: Pearls and Pitfalls"
National Association of EMS Physicians Annual Meeting
Tucson, Arizona (January, 2002)

"Reflections from Ground Zero: The World Trade Center Tragedy" EMS State of the Science: A Gathering of Eagles Conference Dallas, Texas (February, 2002)

"EMS and Politics: The LA Story" EMS State of the Science: A Gathering of Eagles Conference Dallas, Texas (February, 2002)

"Urban Search and Rescue"
California State Firefighters Association Annual EMS Seminar Northridge, California (April, 2002)

"Disaster Medicine"
MLK/Drew Medical Center Emergency Medicine Grand Rounds
Los Angeles, California (April, 2002)

"Paramedic Identification of Congestive Heart Failure" Florida EMF Clinical Conference on Prehospital Care Orlando, Florida (July, 2002)

"Current Controversies in EMS"
Florida EMF Clinical Conference on Prehospital Care
Orlando, Florida (July, 2002)

"Introduction to Nerve Agents"
Good Samaritan Disaster Medicine Symposium
Los Angeles, California (September, 2002)

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### Invited Lectures (continued):

"Multiple Casualty Incidents"

LAFD Chief Officer Training Symposium

Los Angeles, California (December, 2002)

"CHF: A Protocol for EMS Providers"
EMS State of the Science: A Gathering of Eagles Conference
Dallas, Texas (February, 2003)

"Ambulance Diversion"
EMS State of the Science: A Gathering of Eagles Conference
Dallas, Texas (February, 2003)

Implementation of a Public Access AED Program American Heart Association PAD Conference Los Angeles, California (March, 2003)

"Helicopter Transport: Bang for our Buck?" USC Trauma/Critical Care Symposium Pasadena, California (May, 2003)

"Prehospital Care of the Trauma Patient" Hawaiian Islands Trauma Symposium Honolulu, Hawaii (July, 2003)

"Paralytic Agents in the Prehospital Setting" Hawaiian Islands Trauma Symposium Honolulu, Hawaii (July, 2003)

"Risk Management in EMS"
Hawaiian Islands Trauma Symposium
Honolulu, Hawaii (July, 2003)

"Disaster Medicine"
USC Essentials of Emergency Medicine Course
Las Vegas, Nevada (November, 2003)

"Trauma in Pregnancy"
USC Essentials of Emergency Medicine Course
Las Vegas, Nevada (November, 2003)

"Magnesium for Acute Stroke: FAST-MAG"
EMS State of the Science: A Gathering of Eagles Conference
Dallas, Texas (February, 2004)

"2 for 1: Trauma in Pregnancy" EMS Today – JEMS Annual Conference Salt Lake City, Utah (March, 2004)

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### Invited Lectures (continued):

"Prehospital Trauma Care: More or Less?" EMS Today – JEMS Annual Conference Salt Lake City, Utah (March, 2004)

"Chemical Weapons"
EMS Today – JEMS Annual Conference
Salt Lake City, Utah (March, 2004)

"Cyanide as a Chemical Weapon" Fire-Rescue Med 2004 Las Vegas, Nevada (April 2004)

"New Methods of Prehospital Airway Management" USC Trauma and Critical Care Symposium Pasadena, California (May 2004)

"Paramedic Initiation of Neuroprotective Agents in the Field: The FAST-MAG Study" Florida Emergency Medicine Foundation Annual ClinCon Conference Orlando, Florida (July, 2004)

"The Impact of ED Overcrowding on EMS Availability"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2004)

"Airway management in the patient with cervical spine injury" USC Airway Management Course Los Angeles, California (September 2004)

"Controversies in Prehospital Care: Aeromedical Transport and Other Hot Topics" ACEP 2004 Scientific Assembly San Francisco, California (October 2004)

"Advice for the New and Not So New EMS Medical Director" ACEP 2004 Scientific Assembly San Francisco, California (October 2004)

"Blood Products – When, What, How?" USC Essentials Course 2004 Las Vegas, Nevada (November 2004)

"Apparently Minor MVA - A Work-Up and Treatment Algorithm" USC Essentials Course 2004
Las Vegas, Nevada (November 2004)

"EMS Scope of Practice: Is More Good or is Less More" National Association of EMS Physicians Annual Conference Naples, Florida (January, 2005)

"Tracheal Debate: Whether to Intubate"
EMS State of the Science-A Gathering of Eagles
Dallas, Texas (February, 2005)

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### Invited Lectures (continued):

"Salt Water or Hemoglobin: Blood Substitutes in the Prehospital Setting" EMS Today – JEMS Annual Conference Philadelphia, Pennsylvania (March, 2005)

"Diagnosis & Treatment of Cyanide Toxicity - New & Improved" EMS Today – JEMS Annual Conference Philadelphia, Pennsylvania (March, 2005)

"Trauma in Pregnancy" EMS Today – JEMS Annual Conference Philadelphia, Pennsylvania (March, 2005)

"Los Angeles Paramedic Staffing Shortage: Crisis to Solution" IAFC Fire Rescue Med Annual Conference Las Vegas, Nevada (April, 2005)

"Is Air Ambulance Transport Worth the Cost?"
University of Southern California Annual Trauma/Critical Care Symposium
Pasadena, California (May, 2005)

"Current Controversies in EMS" FDIC West Annual Conference Los Angeles, California (June, 2005)

"Prehospital Trauma Care: What Works and What Doesn't?" International Interdisciplinary Conference on Emergencies Montreal, Canada (June, 2005)

"Termination of resuscitative efforts in the prehospital setting: recognizing futility" International Interdisciplinary Conference on Emergencies Montreal, Canada (June, 2005)

"Disaster Preparedness in a Large, Urban Area: Keys for Success" International Interdisciplinary Conference on Emergencies Montreal, Canada (June, 2005)

"EMS Scope of Practice Controversies"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2005)

"Current Controversies in EMS"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2005)

"Prehospital Airway Management of the Trauma Patient" Cottage Hospital Annual Trauma Conference Santa Barbara, California (July, 2005)

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### Invited Lectures (continued):

"Controversies in EMS"
Santa Barbara Annual EMS Conference
Santa Barbara, California (October, 2005)

"Current Topics in EMS"
Prehospital Emergency Care and Crisis Intervention Conference
Salt Lake City, Utah (November, 2005)

"Disaster Medicine"
Prehospital Emergency Care and Crisis Intervention Conference
Salt Lake City, Utah (November, 2005)

"Salt Water or Blood: Hemoglobin Substitutes"
Prehospital Emergency Care and Crisis Intervention Conference
Salt Lake City, Utah (November, 2005)

"Thoracic Trauma Update"
"The LA Train Disaster: Lessons Learned"
USC Essentials of Emergency Medicine 2005
Las Vegas, Nevada (November, 2005)

"The LA Train Disaster: Lessons Learned" USC Essentials of Emergency Medicine 2005 Las Vegas, Nevada (November, 2005)

"The Role of Capnography in EMS"
EMS State of the Science-A Gathering of Eagles
Dallas, Texas (February, 2006)

"Healthcare System Capacity During an Influenza Pandemic" National Disaster Medical System (NDMS) Annual Conference Reno, Nevada (April, 2006)

"Termination of Resuscitation in the Field: Recognizing Futility" California EMS Authority EMS Conference San Diego, California (May, 2006)

"Cardiac Care/Cardiac Arrest 2006: State of the Art"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2006)

"Hemophilia and Sickle Cell Anemia"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2006)

"EMS Staffing Models: All ALS vs. A Tiered Model"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2006)

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### Invited Lectures (continued):

"Minor Abdominal Trauma – CT and Home?" USC Essentials of Emergency Medicine 2006 Las Vegas, Nevada (November, 2006)

"Blunt Cardiac Arrest: An Algorithm"
USC Essentials of Emergency Medicine 2006
Las Vegas, Nevada (November, 2006)

"Toxic Inhalations" Institute for Emergency Medical Education Annual Conference Maui, Hawaii (December, 2006)

"Disaster Medicine" National Ass'n of EMS Physicians Medical Director's Course Naples, Florida (January, 2007)

"ED Overcrowding" National Ass'n of EMS Physicians Medical Director's Course Naples, Florida (January, 2007)

"Challenging Past Practice in EMS"
National Ass'n of EMS Physicians Annual Conference
Naples, Florida (January, 2007)

"Is Transport to the Closest Hospital a Thing of the Past?" EMS State of the Science-A Gathering of Eagles Dallas, Texas (February, 2007)

"The Paramedic Shortage: Feast or Famine" EMS State of the Science-A Gathering of Eagles Dallas, Texas (February, 2007)

"The New Cyanide Antidote: Ready for Primetime?" EMS State of the Science-A Gathering of Eagles Dallas, Texas (February, 2007)

"Cardiac Care and Cardiac Arrest Resuscitation: State of the Art" EMS Today Annual Conference Baltimore, Maryland (March, 2007)

"ALS vs BLS: Is more ALS really better?" EMS Today Annual Conference Baltimore, Maryland (March, 2007)

"Trauma Care 2007"
EMS Today Annual Conference
Baltimore, Maryland (March, 2007)

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### Invited Lectures (continued):

"New Treatments for Smoke Inhalation" Nevada Rural EMS Conference Elko, Nevada (April, 2007)

"Plain Films for Trauma: Obsolete?"
USC Trauma and Critical Care Symposium
Pasadena, California (May, 2007)

"Toxic Inhalations"
Florida Emergency Medicine Foundation Annual ClinCon Conference
Orlando, Florida (July, 2007)

"Trauma Update 2007"
Florida Emergency Medicine Foundation Annual ClinCon Conference Orlando, Florida (July, 2007)

"Challenging Past Practice in EMS" Annual EMS Leadership Conference Toronto, Canada (September 2007)

"Gadgets, gizmos, and new devices in EMS" ACEP Advanced EMS Medical Director's Course Seattle, Washington (October, 2007)

"New Approaches to treating toxic inhalation"
Whatcom County EMS Annual conference on Prehospital medicine
Bellingham, Washington (October, 2007)

"Current Controversies in EMS"
Whatcom County EMS Annual conference on Prehospital medicine
Bellingham, Washington (October, 2007)

"What's New in Prehospital Care?"
USC Essentials of Emergency Medicine 2007
Las Vegas, Nevada (November, 2007)

"End-Tidal CO2 – Uses in the Emergency Department" USC Essentials of Emergency Medicine 2007 Las Vegas, Nevada (November, 2007)

"What's New in Trauma Management" Institute for Emergency Medical Education Annual Conference Maui, Hawaii (December 2007)

"Fundamentals of Disaster Management" NAEMSP Medical Director's Course Phoenix, Arizona (January 2008)

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# Invited Lectures (continued):

"Termination of Resuscitation"
EMS State of the Science Annual Conference
Dallas, Texas (February 2008)

"Impact of STEMI Receiving Centers"
EMS State of the Science Annual Conference
Dallas, Texas (February 2008)

Keynote Speaker Navigator Emergency Medical Dispatcher Annual Conference Baltimore, Maryland (April 2008)

Incorporating New Devices Into Your EMS System Emergency Cardiovascular Care Conference Las Vegas, Nevada (June 2008)

"Paramedic Staffing and Deployment Strategies" ACEP Advanced EMS Medical Directors' Course Chicago, Illinois (October 2008)

"Metrolink Tragedy: Multiple Casualty Incident" USC Essentials of Emergency Medicine 2008 Las Vegas, Nevada (November, 2008)

"Penetrating Extremity Trauma"
USC Essentials of Emergency Medicine 2008
Las Vegas, Nevada (November, 2008)

The LA Metrolink Crash: New MCI Considerations" EMS State of the Science Annual Conference Dallas, Texas (February 2009)

"The Metrolink Disaster: MCI Lessons Learned" USC Trauma and Critical Care Symposium Pasadena, California (March, 2009)

"Prehospital Intubation for the Major Trauma Patient: Pro or Con?" Cottage Hospital Annual Multiple Trauma Symposium Santa Barbara, California (July, 2009)

"Can EMS Decide Who Should Be Transported?" ACEP Advanced EMS Medical Directors' Course Boston, Massachusetts (October 2009)

"Implementation of STEMI Receiving Centers in Los Angeles" ACEP Advanced EMS Medical Directors' Course Boston, Massachusetts (October 2009)

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### Invited Lectures (continued):

"Agitated Delirium"
ACEP Advanced EMS Medical Directors' Course
Boston, Massachusetts (October 2009)

"Transvenous Pacemakers"
USC Essentials of Emergency Medicine 2009
Las Vegas, Nevada (November, 2009)

"Destination and Diversion Issues in EMS"
National Association of EMS Physicians Annual Meeting
Phoenix, Arizona (January, 2010)

"Creation of STEMI Centers"
NAEMSP Advanced EMS Medical Directors Course
Phoenix, Arizona (January, 2010)

"H1N1 and EMS"
National Association of EMS Physicians Annual Meeting
Phoenix, Arizona (January, 2010)

"Mandatory Transportation Debate"
EMS State of the Science Annual Conference
Dallas, Texas (February 2010)

"CPR: Present Practice and Future Directions" Providence Holy Cross Medical Center Mission Hills, California (April 2010)

"FAST MAG Study: EMS Role in Early Stroke Treatment" Emergency Management of Stroke Conference Houston, Texas (April 2010)

"Hypothermia for Cardiac Arrest"
USC Essentials of Emergency Medicine
San Francisco, California (November, 2010)

"CPR Made Simple"
USC Essentials of Emergency Medicine
San Francisco, California (November, 2010)

"2010 Ways for Managing Strokes"
Emergency Cardiovascular Care Update (ECCU)
San Diego, California (December, 2010)

"Navigating the Hurdles in Effecting STEMI System Care" Emergency Cardiovascular Care Update (ECCU) San Diego, California (December, 2010)

"As Serious as a Heart Attack: STEMI Systems of Care" EMS State of the Science Annual Conference Dallas, Texas (February 2011)

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### Invited Lectures (continued):

"What's New is Prehospital Stroke Care?" EMS State of the Science Annual Conference Dallas, Texas (February 2010)

"Who is a Trauma Patient?"
Santa Barbara Annual Trauma Symposium
Santa Barbara, California (June 2011)

Preserving Neurologic Function in CPR and Acute Stroke Torrance Memorial Medical Center Torrance, California (September 2011)

Establishing a STEMI System ACEP Advanced EMS Medical Directors' Course San Francisco, California (October 2011)

Trends in Out-of-Hospital Cardiac Arrest in Los Angeles ACEP Research Forum San Francisco, California (October 2011)

Evolution of a STEMI Care System: The Los Angeles Experience ACEP Research Forum San Francisco, California (October 2011)

Best EMS Papers of 2011 USC Essentials of Emergency Medicine San Francisco, California (November, 2011)

Ten Trauma Errors to Avoid USC Essentials of Emergency Medicine San Francisco, California (November, 2011)

Confronting EMS Budget Cuts in the Era of Healthcare Reform EMS State of the Science Annual Conference Dallas, Texas (February, 2012)

The New Trauma Triage 2012 EMS State of the Science Annual Conference Dallas, Texas (February, 2012)

Mechanical Devices in CPR 1st Pan-Hellenic Congress on Emergency Prehospital Care Thessaloniki, Greece (April, 2012)

Organization and Funding of the Los Angeles EMS System 1st Pan-Hellenic Congress on Emergency Prehospital Care Thessaloniki, Greece (April, 2012)

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# Invited Lectures (continued):

Paramedic Training in Los Angeles 1st Pan-Hellenic Congress on Emergency Prehospital Care Thessaloniki, Greece (April, 2012)

Do Paramedics Make any Difference in Stroke Patients? 1st Pan-Hellenic Congress on Emergency Prehospital Care Thessaloniki, Greece (April, 2012)

Keynote Speaker: Health Reform and EMS Ohio State Annual EMS Conference Columbus, Ohio (May, 2012)

Trial and Error: Dealing with Mistakes in EMS Ohio State Annual EMS Conference Columbus, Ohio (May, 2012)

Hospital Emergency Response Teams USC Trauma and Critical Care Symposium Pasadena, California (May, 2012)

Role of Capnography as a Predictor in Cardiac Arrest EMS Administrators Leadership Conference of California Long Beach, California (June, 2012)

Alternatives to Routine Emergency Department Transport ACEP Advanced EMS Medical Directors' Course Denver, California (October 2012)

The Rising Tide of Pulseless Electrical Activity Cedars Sinai Arrhythmia Conference Los Angeles, California (December, 2012)

EMS in Trauma Care: Less is More? 3<sup>rd</sup> Annual California Trauma and Resuscitation Symposium San Diego, California (January, 2013)

Healthcare Reform and EMS Eagles Annual EMS Conference Dallas, Texas (February, 2013)

Maximizing Care in Mass Casualty Incidents USC Trauma and Critical Care Symposium Pasadena, California (May, 2013)

Optimizing Outcomes from Traumatic Brain and Spinal Cord Injury Neurocritical Care Symposium Los Angeles, California (June, 2013)

Prehospital Spinal Immobilization: A Critical Appraisal USC Trauma and Critical Care Symposium Pasadena, California (May, 2014)

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# Invited Lectures (continued):

Management of Office Emergencies Orange County Dental Association Irvine, California (October 2014)

Collateral Advantages of Prehospital Research EMS State of the Science Annual Conference Dallas, Texas (February, 2015)

Impact and Results of the FAST MAG Study EMS Administrators of California Annual Conference Coronado, California (May, 2015)

Pit Crew Concept in Prehospital Care Emergency Cardiovascular Care Update Conference San Diego, California (December 2015)

Collateral Advantages of Prehospital Research Emergency Cardiovascular Care Update Conference San Diego, California (December 2015)

Impact of a new dispatch system on cardiac arrest survival Emergency Cardiovascular Care Update Conference San Diego, California (December 2015)

Implementation of a Nurse Practitioner Response Unit EMS State of the Science Annual Conference Dallas, Texas (February 2016)

Helicopter Transport in an Urban Area: Saving Lives or Wasting Resources? USC Trauma/Critical Care Symposium Pasadena, California (May 2016)

Innovation in EMS California Fire, EMS, and Disaster (CFED) Conference Indian Wells, California (May 2016)

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### **Grant Funding:**

Department of Health and Human Services – Maternal and Child Health Bureau

"Evaluation of the Pediatric Assessment Triangle as an Assessment Tool for Children in

the Prehospital Setting""

Study Role: Co-Principal Investigator Research Award Number: 43543

Funding Period: September 2007 - August 2010

Amount Received: \$600,000

National Institutes of Health Grant, for the study entitled:

"Field Administration for Stroke Therapy - Magnesium (FAST-MAG)

Study Role: Co-Principal Investigator

NIH GRANT NUMBER: 1 U01 NS044364-01A1 Funding Period: July 2003-June 2012 Amount Received: \$ 16,000,000

Annenberg Foundation, EMS Emergency Cardiac Care Project

Secured donation to purchase 12 lead ECGs for all LAFD paramedic resources, provide ACLS training for all LAFD paramedics, and hire two full time research assistants to pursue cardiac center designation in Los Angeles under the auspices of the American Heart Association

Funding Period: July 2004 – July 2006 Amount Received: \$ 2,910,195

 American Heart Association, Beginning Grant-in-Aid, for the study entitled: "Cardiac Arrest and Resuscitation Evaluation in Los Angeles: CARE-LA".

Study Role: Principal Investigator AHA GRANT NUMBER: 0060113Y

Funding period: July 2000 - July 2002

Amount Received: \$ 120,000

 EMS Prevention 2000 Block Grant from the Centers for Disease Control, through the California State EMS Authority, for the study entitled

"Prehospital Identification and Rapid Treatment of Acute Stroke".

Study Role: Principal Investigator

Funding period: July 1998 - July 2000.

Amount Received: \$ 160,000

American Heart Association, Greater Los Angeles Affiliate

for study entitled "Prehospital Identification and Rapid Treatment of Acute Stroke".

Study Role: Principal Investigator AHA GRANT NUMBER: 1124-GI1.

Funding period: July 1997 - July 1998.

Amount Received: \$40,000

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# Grant Funding (cont'd):

American Heart Association, Greater Los Angeles Affiliate

for study entitled "Prehospital Identification and Rapid Treatment of Acute Stroke".

Research Award # 1124-GI2.

Study Role: Principal Investigator

Funding period: July 1998- July 1999.

Amount Received: \$40,000

The University of Southern California James H. Zumberge Faculty Research and Innovation Fund for study entitled "Prehospital Identification and Rapid Treatment of Acute Stroke".

Study Role: Principal Investigator

Funding period: July 1997- July 1998.

Amount Received: \$ 25,000

 Los Angeles County Sheriff's Department for study entitled: "Positional Asphyxia and its Relation To Various Restraint Devices"

Study Role: Co-Principal Investigator

Funding period: 1995. Amount Received: \$ 7,000

 Glaxo Pharmaceuticals, Inc. for study entitled: "The Use of Metered Dose Inhalers for Treatment of Acute Asthma in the Prehospital Setting".

Study Role: Principal Investigator
Funding period: 1994.
Amount Received: \$ 5,200

### Peer-Reviewed Journal Reviewer:

Academic Emergency Medicine

Prehospital Emergency Care

Critical Care

Pediatrics

Annals of Emergency Medicine

Resuscitation

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#### **Editorial Board Member:**

2004 - Present: Prehospital Emergency Care

2005 - 2012t: Journal of Emergency Medical Services

### **Media Presentations:**

- KCAL TV Channel 9 Los Angeles 30 minute documentary entitled "Are We Safe?" key person interviewed on this program discussing preparation for terrorist attacks.
- On-scene interviews at numerous emergency incidents, including expanded EMS incidents, multiple casualty incidents, and physical rescues.
- Provided numerous press conferences representing both LAC/USC Medical Center and Los Angeles Fire Department
- Conducted interview regarding introduction of prehospital 12 lead ECGs on KNBC news
- Conducted interview in Spanish regarding creation of STEMI-Receiving Centers for heart attack patients on Telemundo

Languages Spoken: English and Spanish

\*References available upon request\*